

7th Winter School for PhD students on

FLUID MACHINES AND ENERGY SYSTEMS

March 30th – April 3rd, 2026

**Fluid Machines, Energy Systems, and Sustainable
Mobility in the Green Energy Transition**

“Le Benedettine” Conference Center

Piazza S. Paolo a Ripa D'Arno, 16 – 56122 - Pisa

7th Winter School for PhD students on
FLUID MACHINES AND ENERGY SYSTEMS

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University of Pisa

The 7th Winter School, supported by AIMSEA (Italian Association of Fluid Machines and Energy Systems), will be held in Pisa, Italy, from **March 30st to April 3rd**. This event is intended for PhD students working on fluid machines and energy systems.

The main subject of the school will be **Fluid Machines, Energy Systems, and Sustainable Mobility in the Green Energy Transition**. The approach to energy conversion and utilization is evolving towards a new paradigm. However, this transition comes with various technical and economic challenges that need thorough investigation.

The school will provide an opportunity to discuss these topics, gain insights into the latest frontiers of engineering research, and foster collaboration among PhD students. The program will include lectures by distinguished speakers from academia and industry. Workgroups and social events will be organized to enhance participant interaction and share the best practices.

I hope you will enjoy this edition of the Winter School on Fluid Machines and Energy Systems!


Prof. Lorenzo Ferrari
Coordinator of the Winter School
lorenzo.ferrari@unipi.it

Speakers

- **Prof. D. Chiaramonti** Polytechnic University of Turin
Biofuel policies and scenarios: where are we going?
- **Prof. S. Ubertini** Tuscia University
Ongoing developments in nuclear energy generation: fluid machinery and power conversion
- **Prof. M. Ceraolo** University of Pisa
Electric vehicles and energy transition
- **Dr. R. Christodoulaki** National Technical University of Athens
Energy efficiency and renewables in buildings — Designing for a fragile world
- **Prof. A. Ficarella** University of Salento
New concepts for aircraft propulsion
- **Prof. W. De Paepe** University of Mons
Alternative MGT cycles – cycle humidification for improved efficiency and flexibility
- **Prof. V. Mulone** University of Rome Tor Vergata
Key technologies for decarbonization via biomass and hydrogen
- **Prof. C. Markides** Imperial College London
Fundamentals of thermal-fluid processes in positive-displacement compression and expansion for energy conversion and storage applications
- **Prof. M. Milani** University of Modena and Reggio Emilia
Design of integrated fluid power systems for motion control
- **Prof. A. Algieri** University of Calabria
Hybrid poly-generation energy systems: optimal design, synthesis, and operation
- **Prof. F. Montomoli** Sant'Anna School of Advanced Studies
Towards net zero in turbomachinery: digital design, machine learning and uncertainty quantification
- **Dr. L. Arcioni** TREE s.r.l.
Introduction to the EU emissions trading system (EU ETS): historical overview and current structure
- **Dr. C. Saletti** University of Parma
Optimal control of smart energy systems: methods and applications

Visit to SestaLab facility

The visit is included in the participation fee and is not mandatory for the award of ETCs. Confirmation of participation is required to attend. The meeting point is at 8:15 AM at Largo Lucio Lazzarino, 1 (entrance of the School of Engineering, Pisa). Transfer to the SestaLab facility will be by coach (approximately 2 hours). The program includes a presentation of SestaLab activities and laboratories. A buffet lunch is included. The estimated return time to Pisa is 4:00 PM.

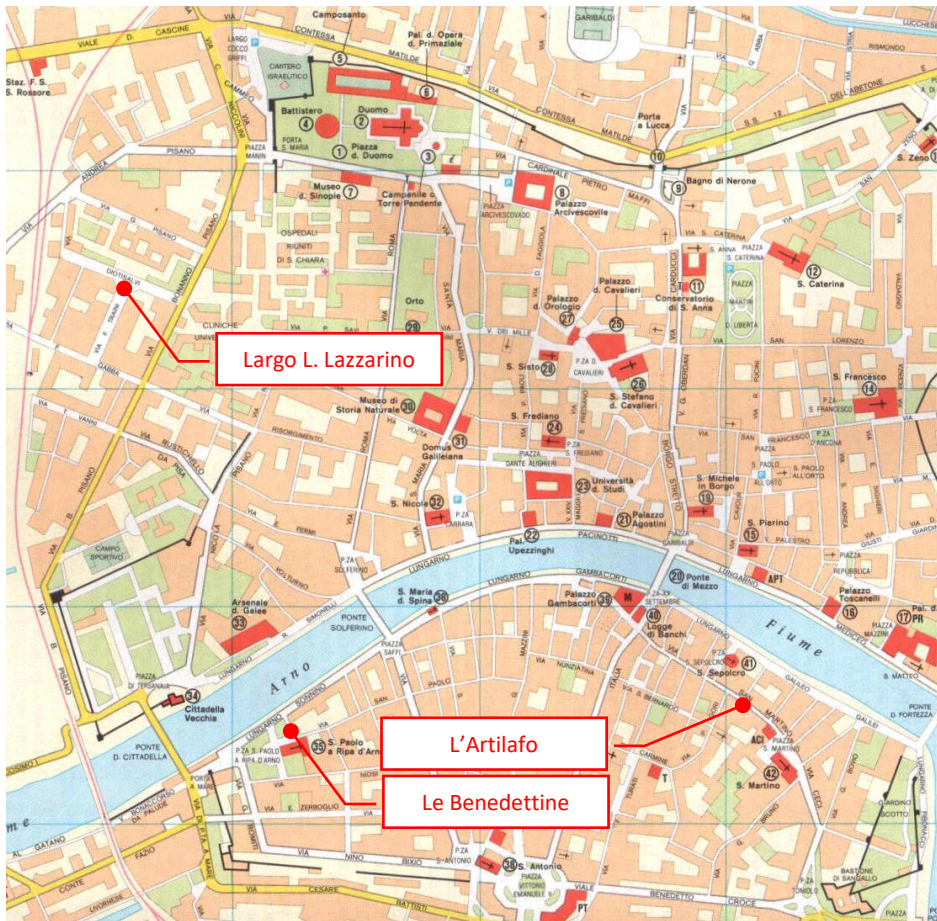
	March 30th	March 31st	April 1st	April 2nd	April 3rd
09:30 - 11:00	Opening ceremony	Dr. R. Christodoulaki	Prof. C. Markides	Dr. L. Arcioni	Visit to SestaLAB
11:00 - 12:30	Prof. D. Chiaromonte	Prof. A. Ficarella	Prof. M. Milani	Dr. C. Saletti	
12:30 - 14:00	Lunch	Lunch	Lunch	Lunch	
14:00 - 15:30	Prof. S. Ubertini	Prof. W. De Paepe	Prof. A. Algieri	Workgroup Activity	
15:30 - 17:00	Prof. M. Ceraolo	Prof. V. Mulone	Prof. F. Montomoli		
17:00 - 19:00	Welcome reception	Coffee break	Coffee break	Closing ceremony	
		Workgroup activity	Workgroup activity		
			Social dinner		

Locations

March 30th – April 2nd "Le Benedettine" Conf. Center - Piazza S. Paolo a Ripa D'Arno, 16, Pisa

March 30th Welcome reception @5:30 pm - "Le Benedettine" Conf. Center

April 1st Social dinner @7:30 pm - "L'Artiflato" Via S. Martino, 33, 56125, Pisa



Largo L. Lazzarino

L'Artifafo

Le Benedettine

List of Attendees

#	Last name	First name	University
1.	Abdi	Syed Muhammad Kumail	Polytechnic University of Marche
2.	Abdullah	Mohsin	Lithuanian Energy Institute
3.	Alfreijat	Sari	Università degli Studi di Perugia
4.	Ambrasevicius	Ignas	Lithuanian Energy Institute
5.	Ballini Berlincioni	Matteo	Università degli Studi di Firenze
6.	Benvenuti	Matteo	University of Pisa
7.	Binni	Pietro	Università di Bologna
8.	Calcich	Luka	University of Rijeka (Croatia)
9.	Cali	Noemi	Università degli Studi di Catania
10.	Cella	Celeste	University of Genoa
11.	Chumak	Bohdan	Lithuanian Energy Institute
12.	Del Vecchio	Claudio	Università di Roma Tor Vergata
13.	Di Fabrizio	Alberto	Università degli Studi di L'Aquila
14.	Di Prospero	Federico	Università degli Studi di L'Aquila
15.	Elshanshoury	Mahmoud	University of Pisa
16.	Gambadori	Lorenzo	Libera Università di Bolzano
17.	Jankovic	Dusan	Università degli Studi di Roma Tor Vergata
18.	Khalil	Zulfiqar	Lithuanian Energy Institute
19.	Liu	Chen	University of Pisa
20.	Lukoševičius	Ralfas	Lithuanian Energy Institute
21.	Masi	Viola	Università degli Studi di Firenze
22.	Onnis	Federico	University of Genoa
23.	Paoletti	Mattia	Polytechnic University of Marche
24.	Pelusi	Luca	Università degli Studi di L'Aquila
25.	Pierantonelli	Luca	Polytechnic University of Marche
26.	Polimeni	Alessandro	Università degli Studi di Roma Tor Vergata
27.	Razafitsalama	Joddy	University of Pisa
28.	Rosati	Francesca	University of Bologna
29.	Rossi	Fabrizio	University of Foggia
30.	Rossini	Diego	University of Genoa
31.	Shubham	Shubham	University of Salento
32.	Sommariva	Bianca	University of Genoa
33.	Tacchi	Alberto	University of Pisa
34.	Vernazza	Matteo	University of Genoa



Department of Energy, Systems,
Territory and Construction Engineering
University of Pisa